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NEW BUTTERFLY RECORDS FROM THE NEW GUINEA REGION

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Abstract

Twenty two butterfly species known previously from Australia are here recorded from the New Guinea region. *Hypochrysops chrysotoxus* Grose-Smith is shown to be a subspecies of *H. ignita* (Leach).

Introduction

Distribution records of butterflies known from Australia have recently been published by Common and Waterhouse (1972) and D'Abrera (1971). This paper records the occurrence on mainland New Guinea and nearby islands of some Australian species and subspecies additional to those so listed by the above authors. We have included Australian species also known from outside Australia, but not previously recorded from the New Guinea mainland.

Many of the southern Papua New Guinea forms appear to be almost identical with Australian specimens, and we have chosen to apply the same subspecific names to them. The records are from D. P. A. Sands collection, the collection assembled by W. W. Brandt, the Central Reference Insect Collection, Department of Primary Industry, Konedobu, and the British Museum (Natural History). The abbreviations of C., E.H., E.N.B., E.S., Mo., W. and P., are used for Central, Eastern Highlands, East New Britain, East Sepik, Morobe, Western and Province, respectively.

List of species

HESPERIIDAE

Neohesperilla crocea (Miskin)

Localities: C.P.: Laloki; Mount Lawes, 400 m; Rouna; Subitana, 550 m; Tiaba. Northern P.: Popondetta. W.P.: Morehead River at Rouku.

Months recorded: January to June, September.

Notes: This species, not recorded before outside Australia, occurs only in dry eucalypt savannah, and it is interesting to note that there is such an area to the north of the Central Cordillera near Popondetta.

Parnara amalia (Semper)

Localities: C.P.: Waigani. E.S.P.: Angoram. Mo.P.: Gabmazung.

Months recorded: March to May, August to October.

Notes: This species has not been recorded before outside Australia. In Papua New Guinea, it shows definite seasonal fluctuations in numbers. Its larvae are a minor pest of rice.

PAPILIONIDAE

Graphium macleayanum (Leach) (Figs 1-4)

Localities: Chimbu P.: Gembogl, 1850 m. West Sepik P.: Um River near Feramin, 1450 m.

Months recorded: January, May.

Notes: Previously known only from eastern Australia, Tasmania, Norfolk and Lord Howe islands, this insect is a very recent and remarkable discovery in Papua New Guinea. Mr D. Hancock has examined photographs of the Papua New Guinea specimens and suggests they resemble material from southern Queensland. It is most interesting that the closely related *G. weiskei* (Ribbe) occurs in these localities. Monteith and Hancock (1977) recently recorded *G. macleayanum* from Cape York Peninsula.

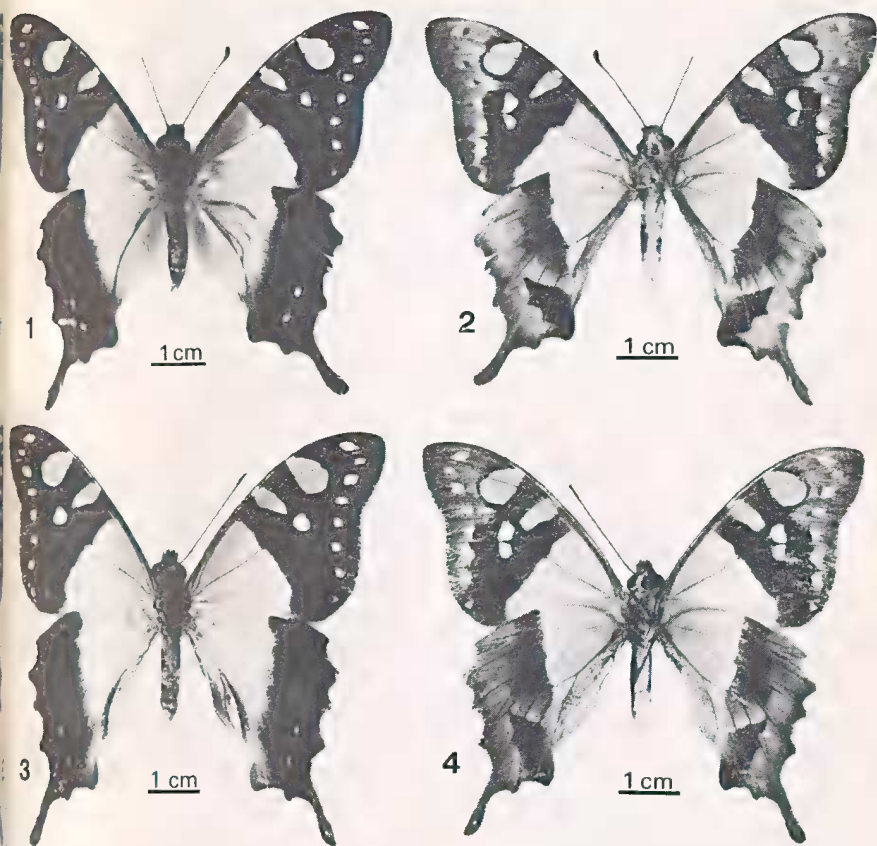
PIERIDAE

Catopsilia scylla etesia (Hewitson)

Localities: C.P.: Ilimo; Kila Kila; Laloki; Sogeri, 500 m; Tanubada. E.N.B.P.: Rabaul.

Months recorded: December to August.

Notes: The species ranges from south-east Asia to Fiji, but was previously unrecorded from Papua New Guinea. There appear to be some slight differences between northern Queensland specimens and those from near Port Moresby. There has been a remarkable increase in abundance of this species in the Port Moresby area since 1975. Larvae are common on *Cassia tora* L.



FIGS 1-4. *Graphium macleayanum* (Leach). (1, 2) male from Um River, W. Sepik Province; (3, 4) male from Gembogl, Chimbu Province.

Eurema sana (Butler)

Localities: C.P.: Bisianumu near Sogeri, 550 m; Loloipa River near Tapini, 680 m; Mount Lawes, 400 m; Rouna; Subitana, 550 m. W.P.: Morehead River at Rouku.

Months recorded: All except August and October.

Notes: This insect was previously known only from northern Australia and the Torres Strait islands.

LYCAENIDAE

Candalides erinus erinus (Fabricius)

Localities: C.P.: Hombrom Bluff; Tiaba. W.P.: Morehead River at Rouku.

Months recorded: April, November.

- Notes:* We can see no differences between specimens from south of the Cordillera and those from eastern Australia. The ssp. *stevensi* Wind and Clench has been described from specimens from Wau, Morobe Province, and is said to possess wider marginal borders on the upperside, and paler subternal spots on the underside of the forewing.

***Catochrysops amasea amasea* Waterhouse and Lyell**

- Localities:* C.P.: Musgrave River Valley, 400 m; Rouna; Sogeri, 500 m; Subitana, 550 m; Tapini, 1200 m. E.S.P.: Angoram. Mo. P.: Lae; Mount Kaindi, 1380 m; Wau, 1100 m. W.P.: Morehead River at Rouku.

Months recorded: October to June.

- Notes:* Previously known only from Cape York and the Torres Strait islands, with another subspecies recorded from Rennell Island in the Solomons.

***Deudorix epirus agimar* Fruhstorfer**

- Localities:* C.P.: Brown River; Musgrave River Valley, 400 m; Owers Corner, 600 m; Sogeri, 500 m.

Months recorded: May, June, September.

- Notes:* This subspecies was previously known only from far north-eastern Australia, including the Torres Strait islands. We have compared specimens from the Rocky and Claudie Rivers, northern Queensland, with both sexes from southern Papua New Guinea and found them to be identical. At Lae, Mo. P., this subspecies overlaps with ssp. *epirus* Felder and intermediate forms occur. At Sogeri, the larvae, together with those of *D. epijarbas* (Moore), feed on the seeds of a species of *Harpullia*.

***Erysichton lineata* (Murray)**

- Localities:* C.P.: Bisiatabu near Sogeri, 550 m; Komania near Amazon Bay, 1050 m; Musgrave River Valley, 400 m; Subitana, 550 m. E.S.P.: Maprik, 180 m. Mo.P.: Finisterre Range at Gabumi, 620 m; Lae; Mt. Kaindi, 1380 m. W.P.: Fly River at Kiunga. Western Highlands P.: Nondugl, 1690 m.

Months recorded: All except March, April, May.

- Notes:* The occurrence of this species on the New Guinea mainland was documented by Tite (1963), but omitted from later publications. There are considerable differences between specimens from various mainland localities, but without publications. There are considerable differences between specimens from various mainland localities, but without detailed examination subspecific status has not been determined.

***Everes lacturnus australis* Couchman**

- Localities:* C.P.: Eio Creek; Komania near Amazon Bay, 1050 m; Rouna;

Subitana, 550 m; Tapini, 1200 m. E.H.P.: Goroka, 1500 m. E.N.B.P.: Rabaul. E.S.P.: Angoram; Maprik, 180 m. Milne Bay P.: Misima Island, 150 m. Mo. P.: Wau, 1100 m. North Solomons P.: Bougainville Island. Western Highlands P.: Mount Hagen, 1600 m; Nondugl, 1690 m. Solomon Islands: Guadalcanal Island.

Months recorded: All except February and May.

Notes: This species is widespread from sea level to almost 1700 m altitude in Papua New Guinea. Specimens tend to be somewhat smaller than those from Australia. The species is widely distributed in the Indo-Australian region, but has not been recorded before from Papua New Guinea.

Freyeria trochylus putli (Kollar)

Localities: C.P.: Mount Lawes, 400 m; Rouna; Sapphire Creek. E.S.P.: Angoram.

Months recorded: March, April, May, October.

Notes: Although the subspecies is recorded from India and Australia, this is the first record of its occurrence in Papua New Guinea.

Hypochrysops apelles apelles (Fabricius)

Localities: C.P.: Jacksons Airport; Tiaba. W.P.: Fly River at Kiunga.

Months recorded: August to October, December, January.

Notes: This subspecies is restricted to south of the Central Cordillera, and is replaced by the much larger ssp. *major* Rothschild to the north. Specimens are similar to, although slightly larger than, a series collected at Silver Plains, northern Queensland. This ssp. occurs in and at the edge of dry eucalypt country near Port Moresby and the larvae feed on the leaves of moderately large trees of *Eucalyptus confertiflora* F. Muell. Specimens from the Aru Islands and southern Irian Jaya are probably this subspecies.

Hypochrysops apollo phoebus (Waterhouse)

Locality: C.P.: Tiaba.

Months recorded: October, December.

Notes: This subspecies, previously recorded only from Prince of Wales Island and Cape York, occurs rarely on the edge of dry country near Port Moresby and only two specimens have been collected recently. Both sexes appear similar to specimens from Cape York and do not have the narrower margins of ssp. *wendesi* Bethune-Baker from Irian Jaya.

Hypochrysops elgneri elgneri (Waterhouse and Lyell)

Localities: C.P.: Laloki; Tiaba; Uberi area. W.P.: Morehead River at Rouku.

Months recorded: November to January, March to June.

Notes: Both sexes collected close to Port Moresby are very similar to those from Prince of Wales Island, Torres Strait, and belong to this subspecies. A male from Uberi has slightly wider black margins than those of specimens from Tiaba. The species has been recorded by Waterhouse (1937) from New Guinea, but the subspecific status was not determined.

***Hypochrysops ignita chrysotoxus* Grose-Smith, stat. n.**

Hypochrysops chrysotoxus Grose-Smith (1899). *Rhopalocera exotica* 3: 28.

Localities: C.P.: Mount Lawes; Rigo road 40 km S.E. Port Moresby; Tiaba.

Months recorded: November to April.

Notes: This insect has been regarded as a distinct species from south-eastern Papua New Guinea. We have examined specimens of *Hypochrysops ignita* (Leach) from Caloundra, southern Queensland; Paluma, Kuranda and Cooktown, northern Queensland; Darwin, Northern Territory; and a long series of both sexes from near Port Moresby, Papua New Guinea. We consider that Queensland specimens from north of Paluma should be regarded as ssp. *chrysonotus* Grose-Smith based on the type female from Cooktown, and south-eastern Queensland specimens are closer to ssp. *ignita* than to *chrysonotus*; however there is considerable variation in the shape of Paluma males, some having the rounded hindwing of ssp. *ignita* and others the straighter hindwing forms of *chrysonotus*.

Although Cape York males are similar in shape to those from Papua New Guinea, ssp. *chrysotoxus* has broad orange-red underside bands edged with greenish-gold rather than the narrower red bands edged with metallic blue of Cape York specimens.

Common and Waterhouse (1972) suggest that ssp. *erythrina* (Waterhouse and Lyell) was collected in Papua New Guinea by W. W. Brandt; however, the colour and breadth of the underside bands, particularly of the male which was then unknown, allow for subspecific distinction of the Papua New Guinea specimens.

In Papua New Guinea, larvae of *H. ignita chrysotoxus* are usually green. They shelter singly or in groups of up to 5 individuals in curled leaves of the foodplant, *Eucalyptus confertiflora*, where they also pupate. The attendant ant belongs to the *Iridomyrmex nitidus* group. Male butterflies hilltop in the same way as the Australian subspecies.

***Liphyra brassolis major* Rothschild**

Localities: C.P.: Waigani. Western P.: Morehead.

Months recorded: August, December.

Notes: This subspecies, previously known from north-eastern Australia, is restricted to the southern side of the Central Cordillera. A

much darker subspecies occurs to the north of the main mountain range.

The species is also here recorded from New Britain (3 females bred from pupae in nest of *Oecophylla smaragdina*, Keravat, May). These are still darker than northern mainland specimens and may well represent another subspecies, but the male is at present unknown.

Neopithecops zalmora (Butler)

Localities: C.P.: Brown River. E.H.P.: Aiyura, 1600 m. Mo.P.: Finisterre Range at Gabumi, 620 m. W.P.: Morehead River at Rouku.

Months recorded: March to July, November.

Notes: Although known from the Trobriand Islands and far north-eastern Australia (ssp. *heria* Fruhstorfer) and north-westward to India and Taiwan, this insect has not previously been recorded from the Papua New Guinea mainland. We have not attempted to determine the subspecific status of mainland specimens.

Philiris innotata (Miskin)

Localities: E.H.P.: Aiyura, 1600 m; Goroka, 1500 m.

Months recorded: March, May.

Notes: Previously known only from eastern Australia and western Cape York Peninsula (Weipa). We have not attempted to determine the sub-specific status of specimens from Papua New Guinea with the limited material available for study.

Philiris nitens (Grose-Smith)

Locality: C.P.: Rouna, 400 m.

Months recorded: February, April, June.

Notes: This distinctive subspecies, as yet undescribed, has a restricted area of blue and absence of white on the fore- and hindwing upperside. The foodplant in northern Queensland, *Glochidion philippicum* Robinson, is also found in Papua New Guinea, but larvae have not yet been located there. Male genitalia are very similar to ssp. *lucina* Waterhouse and Lyell. Valvae are similar to those of ssp. *lucina* from Cape York and shorter than typical ssp. *nitens* from near Cairns. The species is easily confused with the closely related *P. kumusiensis* Tite and *P. argenteus* (Rothschild), but the morphology of male genitalia is distinctive.

Syntarucus plinius pseudocassius (Murray)

Localities: C.P.: Eio Creek, 400 m; Iloilo, 500 m. E.S.P.: Angoram.

Months recorded: March, September, November.

Notes: We have not observed *Plumbago* growing in these localities, and assume the larvae have an alternative foodplant. This subspecies

is known from eastern Australia and the Bismarck and Solomon islands, while others range from India to the Moluccas.

***Theclinessthes miskini* (T. P. Lucas)**

Localities: C.P.: Idlers Bay; Saraga; Tiaba.

Months recorded: October to February.

Notes: We have accepted the suggestion of Dr A. Sibatani that the cycad-associated species is *T. onycha* (Hewitson), and the related *Acacia*-associated species should be known as *T. miskini*, a reversal of the previously accepted nomenclature. On the Papua New Guinea mainland, larvae of *T. miskini* inhabit dry savannah and feed on *Eucalyptus confertiflora*. Sibatani (pers. comm.) expects at a future date to determine the subspecific status of Port Moresby specimens. The species was previously known from the Bismarck Archipelago and the Lesser Sunda islands of Alor and Flores as well as parts of Australia.

***Theclinessthes scintillata* (T. P. Lucas)**

Localities: Irian Jaya: Angi Lakes; Kapaur; Snow Mountains; upper Setakwa River.

Months recorded: January, February, August, December.

Notes: These data refer to six males in the British Museum (Natural History). The species is previously recorded only from Australia.

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